

Reza Mahjourian

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EDUCATION

UNIV. OF TEXAS AT AUSTIN

PHD IN COMPUTER SCIENCE
2018 | GPA: 4.0

UNIVERSITY OF FLORIDA

MS IN COMPUTER SCIENCE
2008 | Gainesville, FL | GPA: 4.0

SHARIF UNIV. OF TECH.

BS IN COMPUTER ENG.
2002 | Tehran, Iran

SKILLS

A.I. RESEARCH

Deep Learning • Computer Vision •
Reinforcement Learning • Evolutionary
Strategies • Robotics

SOFTWARE ENGINEERING

Programming:
Python • TensorFlow • C++ • Lua
Databases:
PostgreSQL, PL/pgSQL
Linux:
Bash Programming • Sed • AWK.
Design Documents

OPEN SOURCE

XPage : Light-weight web framework,
transforms high-level page specs in XML
to server-side scripts using XSLT. **2002**
GameGraph : Study impact of domain
stochasticity and ergodicity on RL. **2011**
Discovery : Evolutionary feature
discovery for RL. **2011**
OpenNERO : Platform for A.I. research
and education (contributor). **2014**
Master-Worker : C++ Python :
Library for coordinating cluster workers
through a shared file system. **2016**

HOBBY PROJECTS

SharifNET : Community website with
custom-developed message board for
Sharif University students. **1999**
Logestan : RSS feed aggregator. **2004**

EXPERIENCE

GOOGLE BRAIN ROBOTICS | STUDENT RESEARCHER

Sep 2017 - Nov 2018 | Mountain View, CA

- Sample-efficient reinforcement learning of robot table tennis with self-play in a VR environment. **Paper** , **Website**
- Unsupervised learning of object depth and motion from raw monocular videos. **AAAI 2019 Paper** , **Website** , **Google AI Blog** , patent application.
- Future semantic segmentation using 3D structure. **ECCV 2018 3D Reconstruction meets Semantics Workshop Paper** , patent application.
- Published the **Bike Video dataset**
- Received peer bonus for collaboration with secondary team.
- Added SSIM and PSNR library functions to **TensorFlow**

GOOGLE BRAIN ROBOTICS | RESEARCH INTERN

May 2017 - Aug 2017 | Mountain View, CA

- Developed a novel method for unsupervised learning of depth and ego-motion from monocular videos. **Website** , patent application.
- Developed custom TensorFlow op for aligning 3D point clouds during training.
- **CVPR 2018 Paper** , **Website** .
- **ICRA 2018 Workshop on Representing a Complex World Paper** .

GOOGLE BRAIN | RESEARCH INTERN

May 2016 - Aug 2016 | Mountain View, CA

- Worked on next-frame prediction in video.
- **IEEE Intelligent Vehicles Symposium 2017 Paper** , patent application.

GOOGLE | SOFTWARE ENGINEERING INTERN

Jun 2015 - Aug 2015 | Mountain View, CA

- Created a sparse-feature deep learning model for Google's ad publishing platform using DistBelief. Improved performance by 1.38% over existing model.
- Created a framework for managing experiments with different model variants.
- Added support for ColumnIO files to DistBelief (now TensorFlow).

TEAMUP | START-UP LEAD DEVELOPER

Jul 2009 - Dec 2009 | London, UK

- Created a Django web app for managing fitness and sports businesses.
- Led the project from inception to alpha release.

UF COLLEGE OF EDUCATION | PART-TIME SOFTWARE DEVELOPER

Jul 2008 - Aug 2008 | Gainesville, FL

- Created a web app for teachers to monitor progress of special students (used XPage).

FLORIDA MUSEUM OF NATURAL HISTORY | SOFTWARE DEVELOPER

Jun 2006 - Aug 2007 | Gainesville, FL

- Created two web apps for managing the specimen in the Lepidoptera (butterflies) and fish research collections (used XPage).

TELEMEDIA | SOFTWARE ENGINEER

Sep 2004 - Dec 2005 | Paris, France

- Created a web app for KDDI (network operator in France) enabling partners to query their call data records (used XPage).
- Created a PostgreSQL database pooling call detail records from telecom devices. Optimized the database design and server for fast queries.
- Developed a Python backend to receive and fulfill orders for mobile content from web services or the GPRS network over SMPP.

VEESTA WORLD CO | SOFTWARE ENGINEER

Sep 2003 - Sep 2004 | Tehran, Iran

- Implemented a SCADA communication protocol for an industrial Remote Terminal Unit (RTU), running on the PSOS real-time OS.
- RTUs were deployed in a system monitoring the national power network.

SCIENCE AND ARTS FOUNDATION (NON-PROFIT) | SOFTWARE DEVELOPER, SYSTEM ADMIN

Aug 1999 - Aug 2003 | Tehran, Iran

This organization was based in Sharif University of Technology's Computing Center. It donated computers and Internet access to model schools in underprivileged areas.

- Managed Linux servers for a network of about a 100 schools connected to Sharif University.
- Created a website offering educational content and services to students.
- Facilitated participation of students in collaborative projects. Talks:
 - “The Experiences of iEARN in Iran”, Osaka, Japan, 2003
 - “How to Make a School Intranet Using Free and Open-Source Software”, Moscow, Russia, 2002
 - “The Activities of Science and Arts Foundation in Iran”, Cape Town, South Africa, 2001

FREELANCE SOFTWARE DEVELOPER

2001 - 2002 | TakTaz Motor - Motorcycle Manufacturer, Tehran, Iran

- Created a web app and an Oracle database enabling the sales office, factory, and dealers to collaboratively manage inventory, wholesale orders, shipments, and registration documents.

1998 - 1999 | Kaveh Khodro - Automaker, Tehran, Iran

- Created a FoxPro application for managing and monitoring the flow of deliveries from suppliers.

1997

- Developed a multiple-choice test evaluation package in FoxPro, offering reports on student performance and progress over time.

IDEH-NEGAR SOFTWARE | SOFTWARE DEVELOPER

Dec 1995 - Apr 1997 | Tehran, Iran

- Programmed custom FoxPro database applications for company clients.
- Created a FoxPro app for managing the company's CD rental business.
- Created a computer telephony app answering user queries over the phone.
- Programmed a C library for visualizing metrics in a neural OCR program.

AWARDS

2008	Provost Fellowship	University of Southern California
2007	Outstanding Academic Accomplishment	University of Florida
2006	Achievement Award	University of Florida
2002	98 th percentile	Computer Science GRE Test
1995	Outstanding Student Award	Sharif University of Technology
1995	78 th /400k	National college entrance exams
1994	National	Iranian Informatics Olympiad